#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015891 Address: 333 Burma Road **Date Inspected:** 14-Jul-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Geng wei / Li yan hua **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No No N/A N/A N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No Yes N/A N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Components

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S.Chandrakumar was present during the times noted above for observations relative to the work being performed. **BAY#14** 

SMAW welding of weld joint 4G-242 located on PCMK SEG3004J for Segment 12AW the welder is identified as 047864. ZPMC QC is identified as Mr. Tang ya jun. The welding variables recorded by QC appeared to Comply with the WPS-B-T-2214-Tc-U5-FCM-1.

SMAW welding of weld joint 3G-080 located on PCMK SEG3004Z for Segment 12AW the welder is identified as 051348. ZPMC QC is identified as Mr. Tang ya jun. The welding variables recorded by QC appeared to Comply with the WPS-B-T-4213-Tc-U4b-2.

FCAW welding of weld joint 3G-046 located on PCMK SEG3004Z for Segment 12AW the welder is identified as 201215. ZPMC QC is identified as Mr. Tang ya jun. The welding variables recorded by QC appeared to Comply with the WPS-B-T-2233-Tc-U4b-F.

SMAW welding of weld joint 4G-004 located on PCMK CA3009 for Segment 12BW the welder is identified as 067183. ZPMC QC is identified as Mr. Wang wei ming. The welding variables recorded by QC appeared to Comply with the WPS-B-T-2214-Tc-U4b-FCM-1.

During random in-process observation of the Critical Weld Repair (CWR) in Segment 12AW, this Caltrans

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Quality Assurance Inspector (QA) discovered the following issue:

-The approved Critical Weld Repair (CWR) was completed using the Flux Core Arc Welding process (FCAW).

This CWR describes using the Shielded Metal Arc Welding (SMAW) process for these repairs.

For more information please see the Incident report

04-0120F4\_TL-15\_B247\_07-14-10\_12AW\_CWR\_Not\_Followed

#### **OUTSIDE SHOP**

#### 11DE

SMAW welding of weld joint 4F-177 located on PCMK SSD17-PP105 for Segment 11DE the welder is identified as 067589. ZPMC QC is identified as Mr. Li ping. The welding variables recorded by QC appeared to Comply with the WPS-B-P-2114-FCM-1.

During in process visual inspection it is found that Fit-up of Drip plate(X339G) over the deck panel of segment 11DE is identified as DP707A at Cross beam side, two additional splice welds were added to the drip plate. These welds are not identified by ZPMC on the current weld map. This is informed to ZPMC QA Mr. Zhang wei and ABF QA Mr.Peter shaw for joint design change.

#### 11EE

SMAW welding of weld joint 3F-207 located on PCMK SSD29-PP107.5 for Segment 11EE the welder is identified as 201087. ZPMC QC is identified as Mr. Li ping. The welding variables recorded by QC appeared to Comply with the WPS-B-P-2113-FCM-1.

### **BAY#16**

SAW welding of weld joint 1G-002 located on PCMK BP3074-001 for Segment 13AW the welder is identified as 045270. ZPMC QC is identified as Mr. Tao wei. The welding variables recorded by QC appeared to Comply with the WPS-B-T-2221-B-U3c-S-2.

## **BAY#19**

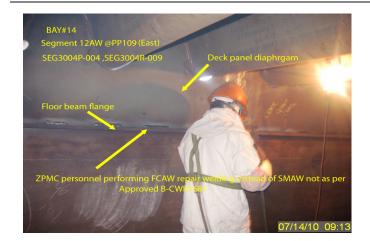
FCAW welding of weld joint 2G-007 located on PCMK BK004A8 for OBG bike path the welder is identified as 062749. ZPMC QC is identified as Mr. Xia chun hui. The welding variables recorded by QC appeared to Comply with the WPS-B-T-2232-Tc-P4-F.

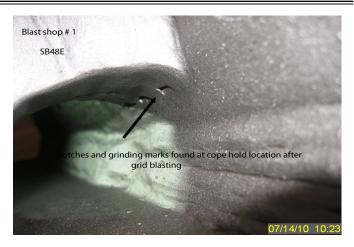
Fit-up of bearing plate is in progress on Bike path BK004A-011.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## **Summary of Conversations:**

No relevant Conversation.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang-15--0042-2372, who represents the Office of Structural Materials for your project.

Kumar, Chadra **Inspected By: Quality Assurance Inspector Reviewed By:** McClendon, Timothy **QA** Reviewer